

What is claimed is:

1. A lightweight bearing in which at least an outer or inner bearing ring has fixing holes formed therein for fixing the ring to another member, the bearing ring comprising:

5 a main bearing ring member in which said fixing holes are formed, and a raceway surface formation member that is fixed to the main bearing ring member and forms a raceway surface on an inner peripheral surface or outer peripheral surface;

10 the raceway surface formation member is formed of an iron-based material, the main bearing ring member is formed of a lightweight material that is lighter than the iron-based material; and

15 a hard plated coating is formed on surface portions of the main bearing ring member that form a seat for fasteners used in the fixing holes.

2. A lightweight bearing according to claim 1, wherein the plated coating is an electroplated or electroless coating of nickel or chromium.

3. A lightweight bearing according to claim 2, wherein the plated coating is approximately 5 microns thick.

20 4. A lightweight bearing according to claim 1, wherein the lightweight material is an alloy of a light metal such as aluminum alloy or titanium alloy, or plastic, or ceramics.

5. A lightweight bearing according to claim 1, in which the bearing ring is an outer ring;

25 the main bearing ring member is formed of aluminum alloy; and

30 the raceway surface formation member comprised of an iron-based material is cast in the aluminum alloy and inserted into the main bearing ring member using pressing by shrink-fitting or the like to unite the two members.

6. A lightweight bearing according to claim 1, in which the bearing ring is an inner ring;

the main bearing ring member is formed of titanium alloy;

and

5 forging is used to unite the raceway surface formation member formed of iron-based material with the main bearing ring member.

7. A lightweight bearing according to claim 1, wherein the bearing ring is an inner ring;

10 the main bearing ring member is formed of titanium alloy;

and

the raceway surface formation member comprised of an iron-based material is cast in the titanium alloy and inserted into the main bearing ring member using pressing by shrink-fitting or the like to 15 unite the two members.

8. A lightweight bearing according to claim 1, wherein the bearing ring is an inner ring;

the main bearing ring member is formed of aluminum alloy;

and

20 forging is used to unite the raceway surface formation member formed of iron-based material with the main bearing ring member.